

What is claimed is:

1. A date-and-time management apparatus capable
of inputting a date-and-time setting request from
5 each of a plurality of date-and-time managers,
comprising:

a date-and-time setting request reception unit
accepting a date-and-time setting request from any
date-and-time manager before accepting a date-and-
10 time setting request from a predetermined date-and-
time manager, and accepting a date-and-time setting
request only from the specified date-and-time
manager after accepting a date-and-time setting
request from the specified date-and-time manager;
15 and

a clock unit functioning in response to the
accepted date-and-time setting request.

2. A date-and-time management apparatus capable
20 of inputting a date-and-time setting request from
each of a plurality of date-and-time managers in a
hierarchical structure, comprising:

a date-and-time setting request reception unit
accepting a date-and-time setting request from any
25 date-and-time manager in the plurality of date-and-

time managers, and then accepting a date-and-time setting request only from a date-and-time manager at a higher hierarchical level than the date-and-time manager whose requested has been accepted before; and

a clock unit functioning in response to the accepted date-and-time setting request.

3. The apparatus according to claim 1, further comprising:

a date-and-time management device for a manager on the date-and-time manager side, wherein said date-and-time management device for the manager comprises a date-and-time setting request unit for issuing to said date-and-time setting request reception unit a copy request for a date-and-time managed by said device as the date-and-time setting request.

4. The apparatus according to claim 3, wherein said date-and-time setting request unit comprises a date-and-time copy data generation unit for generating data for copy of the date-and-time using nonreproductive information received from the date-and-time management device which accepted the

date-and-time setting request and the date-and-time managed by said date-and-time management device for the manager.

5 5. The apparatus according to claim 4, wherein
 said date-and-time copy data generation unit
 encrypts the nonreproductive information and the
 information about the managed date-and-time, and
 generates data for copy of the date-and-time.

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6. The apparatus according to claim 4, wherein
 said date-and-time copy data generation unit
 generates a signature from a result of encrypting
 the nonreproductive information and the information
 about the managed date-and-time, and generates data
15 for copy of a date-and-time by combining the
 nonreproductive information, the managed date-and-
 time, and the signature.

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7. The apparatus according to claim 3, wherein:
 a deliverer of said date-and-time management
 device further comprises a date-and-time management
 device;

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 said date-and-time management device of the
 deliverer comprises a date-and-time setting unit

for setting a date-and-time for said date-and-time management device for the manager when said date-and-time management device for the manager is delivered.

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8. The apparatus according to claim 1, further comprising

10 a nonvolatile storage unit storing correction information for improving precision of said clock unit.

9. The apparatus according to claim 8, further comprising

15 a correction information resetting unit for resetting the correction information stored in said nonvolatile storage unit in said clock unit when said clock unit becomes short of power, power is applied again to said unit, and said date-and-time setting request reception unit accept a date-and-time setting request.

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10. The apparatus according to claim 8, wherein

a secondary battery is provided as a power source of said clock unit.

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11. The apparatus according to claim 2, further comprising:

a date-and-time management device for a manager on the date-and-time manager side, wherein

5 said date-and-time management device for the manager comprises a date-and-time setting request unit for issuing to said date-and-time setting request reception unit a copy request for a date-and-time managed by said device as the date-and-
10 time setting request.

12. The apparatus according to claim 11, wherein

said date-and-time setting request unit comprises a date-and-time copy data generation unit
15 for generating data for copy of the date-and-time using nonreproductive information received from the date-and-time management device which accepted the date-and-time setting request and the date-and-time managed by said date-and-time management device for
20 the manager.

13. The apparatus according to claim 12, wherein

said date-and-time copy data generation unit encrypts the nonreproductive information and the
25 information about the managed date-and-time, and

generates data for copy of the date-and-time.

14. The apparatus according to claim 12, wherein
said date-and-time copy data generation unit
5 generates a signature from a result of encrypting
the nonreproductive information and the information
about the managed date-and-time, and generates data
for copy of a date-and-time by combining the
nonreproductive information, the managed date-and-
10 time, and the signature.

15. The apparatus according to claim 11, wherein:
a deliverer of said date-and-time management
device further comprises a date-and-time management
15 device;

said date-and-time management device of the
deliverer comprises a date-and-time setting unit
for setting a date-and-time for said date-and-time
management device for the manager when said date-
20 and-time management device for the manager is
delivered.

16. The apparatus according to claim 2, further
comprising
25 a nonvolatile storage unit storing correction

information for improving precision of said clock unit.

17. The apparatus according to claim 16, further
5 comprising

a correction information resetting unit for
resetting the correction information stored in said
nonvolatile storage unit in said clock unit when
said clock unit becomes short of power, power is
10 applied again to said unit, and said date-and-time
setting request reception unit accept a date-and-
time setting request.

18. The apparatus according to claim 16, wherein
15 a secondary battery is provided as a power
source of said clock unit.

19. A signature generation apparatus embedded with
a date-and-time management function capable of
20 inputting a date-and-time setting request from each
of a plurality of date-and-time managers,
comprising:

a date-and-time setting request reception unit
accepting a date-and-time setting request from any
25 date-and-time manager before accepting a date-and-

time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the specified date-and-time manager after accepting a date-and-time setting request from the specified date-and-time manager;

a clock unit functioning in response to the accepted date-and-time setting request; and

a signature generation unit generating a signature for input data to be signed according to information about a date-and-time indicated by said clock unit.

20. A signature generation apparatus embedded with a date-and-time management function capable of inputting a date-and-time setting request from each of a plurality of date-and-time managers in a hierarchical structure, comprising:

a date-and-time setting request reception unit accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the specified date-and-time manager after accepting a date-and-time setting request from the specified date-and-time manager;

a clock unit functioning in response to the accepted date-and-time setting request; and

a signature generation unit generating a signature for input data to be signed according to information about a date-and-time indicated by said clock unit.

21. The apparatus according to claim 19, further comprising

a signature stop unit stopping said signature generation unit generating a signature when an operation stop of said clock unit is detected.

22. The apparatus according to claim 21, further comprising:

one or more functions other than the function of generating a signature; and

other function execution unit executing other functions than the function of generating a signature when the operation stop of said clock unit is detected.

23. The apparatus according to claim 19, further comprising

a date-and-time setter information storage

unit storing information about a date-and-time manager as a date-and-time setter who has issued a date-and-time setting request last accepted by said date-and-time setting request reception unit, wherein

said signature generation unit generates a signature according to the information about the date-and-time setter in addition to the date-and-time information.

24. The apparatus according to claim 19, further comprising

a date-and-time setting frequency information storage unit storing a number of date-and-time setting requests ever accepted by said date-and-time setting request reception unit, wherein

said signature generation unit generates a signature according to the information about the date-and-time setting frequency information in addition to the date-and-time information.

25. The apparatus according to claim 20, further comprising

a signature stop unit stopping said signature generation unit generating a signature when an

operation stop of said clock unit is detected.

26. The apparatus according to claim 25, further comprising:

5 one or more functions other than the function of generating a signature; and

10 other function execution unit executing other functions than the function of generating a signature when the operation stop of said clock unit is detected.

27. The apparatus according to claim 20, further comprising

15 a date-and-time setter information storage unit storing information about a date-and-time manager as a date-and-time setter who has issued a date-and-time setting request last accepted by said date-and-time setting request reception unit, wherein

20 said signature generation unit generates a signature according to the information about the date-and-time setter in addition to the date-and-time information.

25 28. The apparatus according to claim 20, further

comprising

a date-and-time setting frequency information storage unit storing a number of date-and-time setting requests ever accepted by said date-and-time setting request reception unit, wherein

said signature generation unit generates a signature according to the information about the date-and-time setting frequency information in addition to the date-and-time information.

29. A data processing apparatus embedded with a function of encrypting input data or generating a signature for input data, comprising:

a retry frequency limit unit limiting a password retry frequency of a user corresponding to a password retry limit frequency set by a manager of an organization to which the user of the data processing apparatus belongs.

30. A data processing apparatus embedded with a function of encrypting input data or generating a signature for input data, comprising:

a password update unit updating a password when a password length after being updated in a password update request from a user is larger than

a shortest password length set by a manager of an organization to which the user of the data processing apparatus belongs.

5 31. A signature verification apparatus for verifying a signature applied to input data, comprising

10 a signature verification result display unit displaying as to whether or not a signal is valid for input data as a result of verifying the signature.

15 32. A method for inputting a date-and-time setting request from each of a plurality of date-and-time managers, and managing a date-and-time corresponding to an accepted date-and-time setting request, comprising:

20 accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the specified date-and-time manager after accepting a date-and-time setting request from the specified date-and-time
25 manager; and

allowing a clock to function in response to the accepted date-and-time setting request.

33. A method for inputting a date-and-time setting request from each of a plurality of date-and-time managers in a hierarchical structure, and managing a date-and-time corresponding to an accepted date-and-time setting request, comprising:

accepting a date-and-time setting request from any date-and-time manager in the plurality of date-and-time managers, and then accepting a date-and-time setting request only from a date-and-time manager at a higher hierarchical level than the date-and-time manager whose requested has been accepted before; and

allowing a clock to function in response to the accepted date-and-time setting request.

34. A computer-readable storage medium storing a program used to direct a computer capable of inputting a date-and-time setting request from each of a plurality of date-and-time managers, and managing a date-and-time corresponding to an accepted date-and-time setting request, comprising the steps of:

accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the specified date-and-time manager after accepting a date-and-time setting request from the specified date-and-time manager; and

allowing a clock to function in response to the accepted date-and-time setting request.

35. A computer-readable storage medium storing a program used to direct a computer capable of inputting a date-and-time setting request from each of a plurality of date-and-time managers in a hierarchical structure, and managing a date-and-time corresponding to an accepted date-and-time setting request, comprising the steps of:

accepting a date-and-time setting request from any date-and-time manager in the plurality of date-and-time managers;

then accepting a date-and-time setting request only from a date-and-time manager at a higher hierarchical level than the date-and-time manager whose requested has been accepted before; and

allowing a clock to function in response to the accepted date-and-time setting request.

36. A date-and-time management system having a
5 common date-and-time management device capable of
inputting a date-and-time setting request from each
of a plurality of date-and-time managers and a
date-and-time management device for a manager
provided for the plurality of date-and-time
10 managers, wherein:

said common date-and-time management device
comprises:

a date-and-time setting request
reception unit accepting a date-and-time setting
15 request from any date-and-time manager before
accepting a date-and-time setting request from a
predetermined date-and-time manager, and accepting
a date-and-time setting request only from the
specified date-and-time manager after accepting a
20 date-and-time setting request from the specified
date-and-time manager; and

a clock unit functioning in response to the accepted date-and-time setting request, and

said date-and-time management device for the
25 manager comprises a date-and-time setting request

unit for issuing to said date-and-time setting request reception unit a request to copy a date-and-time managed by the device as the date-and-time setting request.

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37. A date-and-time management system having a common date-and-time management device capable of inputting a date-and-time setting request from each of a plurality of date-and-time managers and a
 10 date-and-time management device for a manager provided for the plurality of date-and-time managers, wherein:

said common date-and-time management device comprises:

15 a date-and-time setting request reception unit accepting a date-and-time setting request from any date-and-time manager in the plurality of date-and-time managers, and then accepting a date-and-time setting request only from
 20 a date-and-time manager at a higher hierarchical level than the date-and-time manager whose requested has been accepted before; and

a clock unit functioning in response to the accepted date-and-time setting request, and

25 said date-and-time management device for the

manager comprises a date-and-time setting request unit for issuing to said date-and-time setting request reception unit a request to copy a date-and-time managed by the device as the date-and-time setting request.

38. A date-and-time management apparatus capable of inputting a date-and-time setting request from each of a plurality of date-and-time managers, comprising:

date-and-time setting request reception means for accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the specified date-and-time manager after accepting a date-and-time setting request from the specified date-and-time manager; and

clock means for functioning in response to the accepted date-and-time setting request.